SONY

4-262-346-**02** (1)

ネットワーク
サーベイランス
レコーダー

ファーストステップガイド

NSR-S10/S20

IPELA

はじめに

本ファーストステップガイドでは、以下の状況を想定して、運用までの流れを記載しています。設定から運用までの流れを理解する目的でお使いください。

本書で想定している状況

ソニー製のネットワークカメラを自動で登録して、デフォルトの設定内容で連続記録を行う。

既存のネットワークに接続したいときは ...

本機をネットワークに接続する前に、必ず「既存のネットワークに接続するには」（12 ページ）をご覧になり、記載されている手順で設定してください。

外部ストレージとして e-SATA ストレージを使用するときは ...

あらかじめストレージ側で必要な設定を行ってから本機に接続し、「記録データの保存先を設定する」（8 ページ）を参照して、e-SATA ストレージのフォーマットと保存先の追加を行ってください。

より高度な使いかたをしたいときは ...

お使いの環境や用途に応じて、さらに本機の機能を使用したり、詳細な設定を行うときは、『ユーザーガイド』（PDF）をご覧ください。

さらに進んだ使いかたの例：

- アラーム記録を行いたい。
- 音声を使用したい。
- クライアントコンピューターから使いたい。
- より進んだ検索をしたい。
- 動画や静止画を外部メディアに取り出したい。
- 外部からのセンサー入力に対し、画像を拡大表示したり、外部デバイスにリレー出力したい。

最新情報や重要なお知らせは ...

クライアント PC の動作環境や、対応しているカメラの機種、重要なお知らせについては、『リリースノート』（PDF）をご覧ください。

リリースノートは、以下の URL からダウンロードできます。

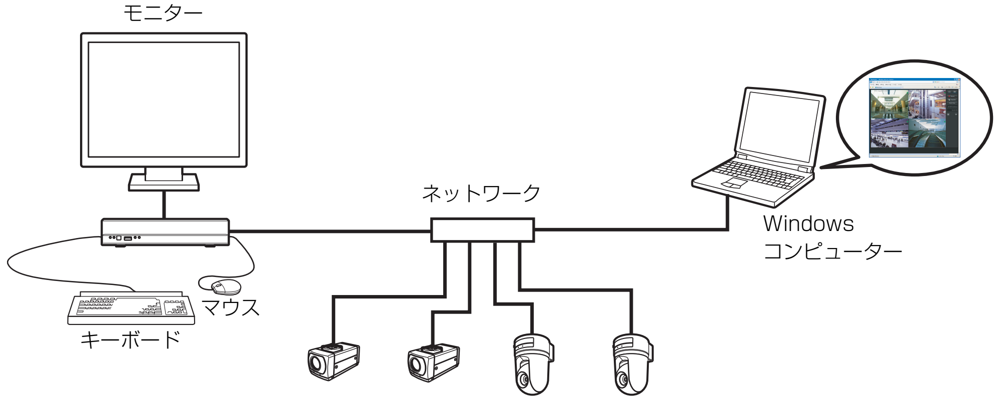
http://www.sony.co.jp/Products/NSR/NSR-S_ReleaseNote_J.pdf

設置と設定の流れ

本書では、以下の構成で使用するときの設置と設定の流れを大まかに説明します。

Step 1 設置する	• 使用する機器を用意する • 各機器を接続する • AC アダプターを接続する
↓	
Step 2 電源を入れ、カメラを登録する	本機の起動時にカメラが探索され、自動登録されます。 カメラが自動登録されると、自動的に常時記録が開始されます。
↓	
Step 3 表示言語を変更する	お買い上げ時は画面用語が英語になっていますので、必要に応じて、表示言語を変更します。
↓	
Step 4 日時を設定する	本機のシステム日時をお使いの地域の日時に合わせます。
↓	
Step 5 記録の準備をする	記録データの保存先を設定する（e-SATA ストレージを使用する場合）
↓	
設定終了	
↓	
Step 6 確認する	• モニタリングの確認をする • 画像の記録／再生を確認する

ここでは、本機とカメラ、クライアントコンピューター（必要に応じて）だけで、以下のようなローカルネットワークを構成する場合を例に説明します。



ご注意

既存のネットワークに接続する場合は、本機をネットワークに接続する前に、必ず「既存のネットワークに接続するには」（12 ページ）をご覧ください。

メモ

- 本機を設置する前に、必ず『設置説明書』（別冊）の「安全のために」をご覧ください。
- 本書では、NSR-S10 の画面例を使って説明しています。

重要

最新の NSR-S10/S20 のファームウェアは、以下の URL からダウンロードできます。

ファームウェアのアップデート方法は、『ユーザーガイド』（PDF）をご覧ください。

http://www.sony.co.jp/Products/NSR/NSR-S.zip

Step 1　設置する

設置場所を決め、各機器を接続します。

使用する機器を用意する

用途に合わせて使用する機器を用意します。

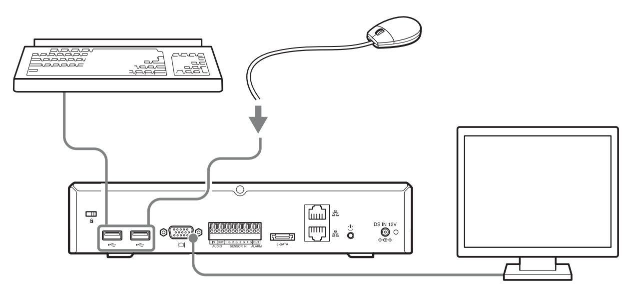
- モニター
- モニターケーブル（必要に応じて）
- USB キーボード
- USB マウス
- ネットワークカメラ
- ネットワークスイッチ
- LAN ケーブル

メモ

USB キーボードを接続しなくても、画面上のソフトキーボードで操作できます。

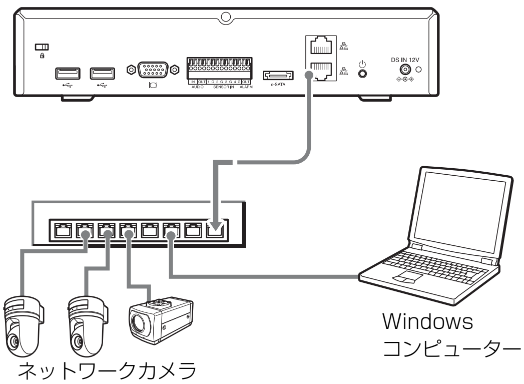
各機器を接続する

本機後面の各端子にモニター、USB マウス、USB キーボードを接続します。



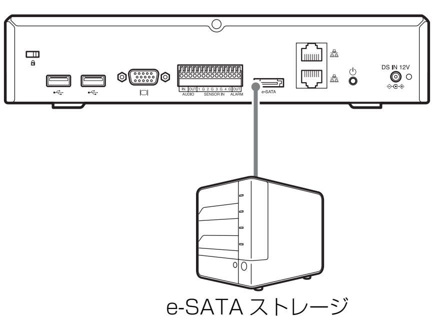
ネットワークカメラを接続する

同一セグメントのネットワークにネットワークカメラと本機を接続します。
クライアントコンピューターを使用する場合も、ネットワークカメラと同一セグメントのネットワークに接続します。



e-SATA ストレージを接続する

外部ストレージとして e-SATA ストレージを使用する場合は、e-SATA ケーブルで接続します。



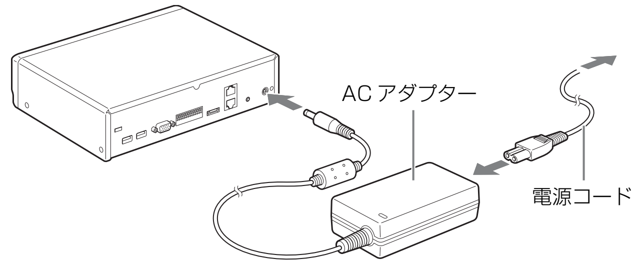
外部ストレージの推奨機種に関しては、リリースノートを参照してください。
リリースノートは以下からダウンロードしてください。
http://www.sony.co.jp/Products/NSR/NSR-S_ReleaseNote_J.pdf

ご注意

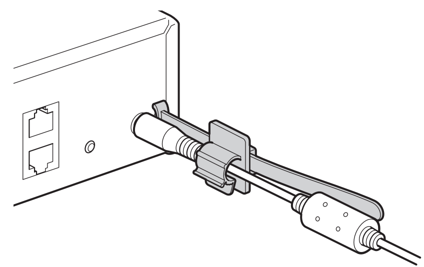
あらかじめストレージ側で RAID ボリュームの作成など、必要な設定を行ってから、本機に接続してください。起動後に、「保存先を設定する（e-SATA ストレージを使用する場合）」（8 ページ）を参照し、e-SATA ストレージのフォーマットと保存先の追加を行ってください。

AC アダプターを接続する

付属の AC アダプターと電源コードを接続します。



プラグが抜けないように、ケーブルクランプで固定してください。



Step 2　電源を入れ、カメラを登録する

本機の電源を入れ、カメラが自動登録されると、すぐにモニタリングできるようになります。

メモ

AC アダプターの電源コードをコンセントに接続すると、自動的に電源が入ります。画面操作または本機後面の電源スイッチで本機の電源を切った後、再度電源を入れるときは、電源スイッチを押してください。

1 ACアダプターの電源コードをコンセントに接続する。

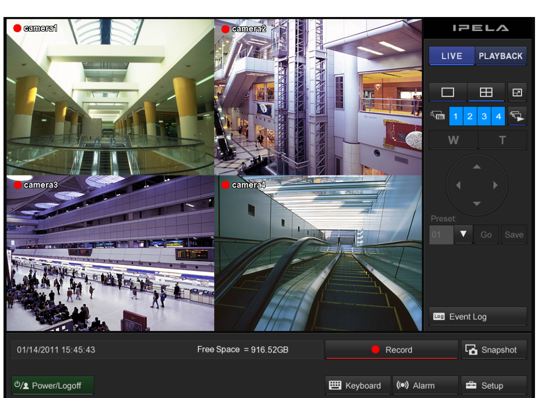
「ピー」と音が鳴り、本機前面の POWER LED が緑色に点灯します。
しばらくすると、モニターに「System Starting. Please Wait...」と表示されます（画面が表示されるまで 1 ～ 2 分かかります）。

本機が起動すると、「メイン」画面が表示されます。

メモ

- 「メイン」画面にログインするユーザー ID とパスワードは以下になります。
  初期設定ユーザー ID：admin
  初期パスワード：admin
- 自動ログインの設定の変更については、『ユーザーガイド』（PDF）の「システムに関する設定をする」をご覧ください。

同一セグメントのネットワークに接続されているカメラが探索され、本機に自動登録されると、「メイン」画面にカメラからの画像が表示されます。



カメラが自動登録されると、自動的に常時記録が開始されます。

メモ

- ソニー製カメラを探索して登録します。
- IP アドレスの設定がお買い上げ時から変更されていないカメラが対象になります。IP アドレスを変更したカメラを登録するには、カメラの IP アドレスを工場出荷状態に戻してから、本機を再度起動してください。
- 複数のカメラが接続されている場合は、探索された順に NSR-S10 は 4 台まで、NSR-S20 は 8 台まで登録されます。

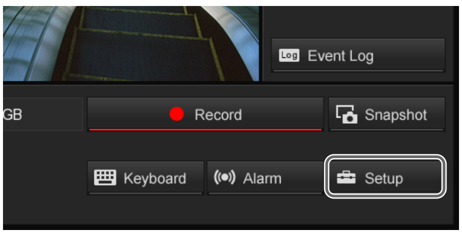
以上で接続は完了です。

「Step 3　表示言語を変更する」に進んでください。

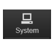
Step 3　表示言語を変更する

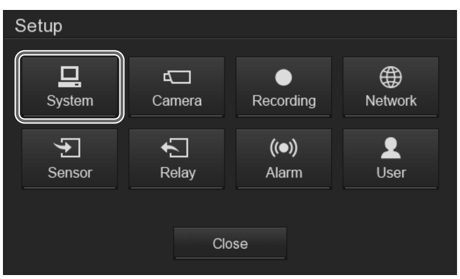
お買い上げ時は画面用語が英語になっていますので、必要に応じて、表示言語を変更します。

1 モニタリング（LIVE）画面右下の（システム設定）をクリックする。



「Setup」画面が表示されます。

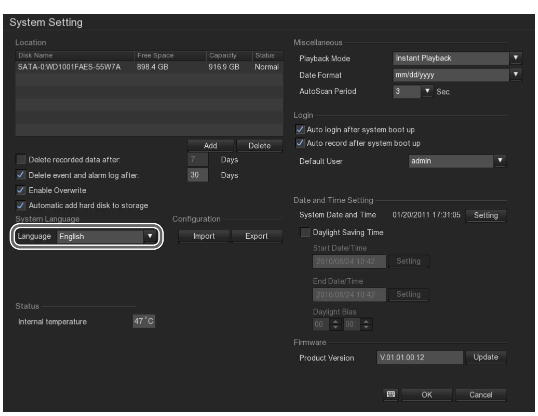
2 （システム設定）をクリックする。



「システム設定」画面が表示されます。

3 ［言語］のドロップダウンメニューから、表示言語を選択する。

言語を選択すると、画面の表示が変わります。

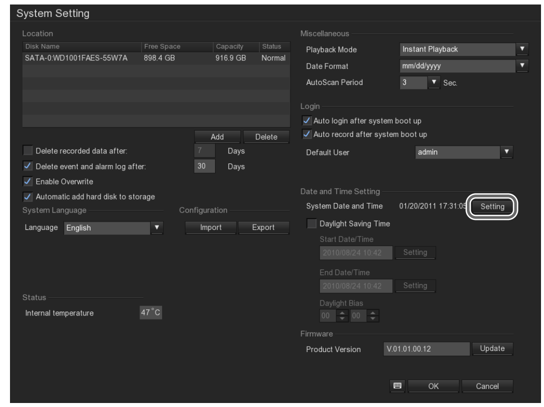


「Step 4　日時を設定する」に進んでください。

Step 4　日時を設定する

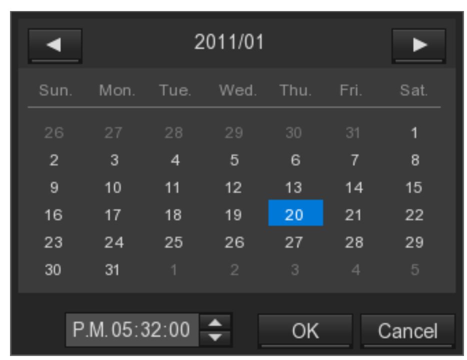
本機内の時計の日時合わせを行います。

1 「システム設定」画面で、システム日時の右にある［設定］をクリックする。



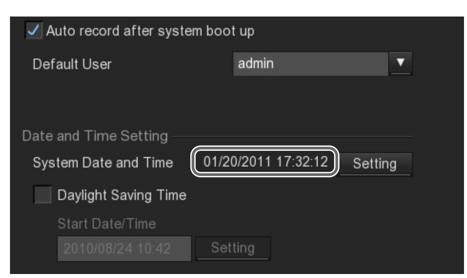
カレンダーが表示されます。

2 現在の日付と時刻を設定し、［OK］をクリックする。



カレンダーが表示されます。

3 ［システム日時］の右側に表示されている日時が正しいことを確認する。



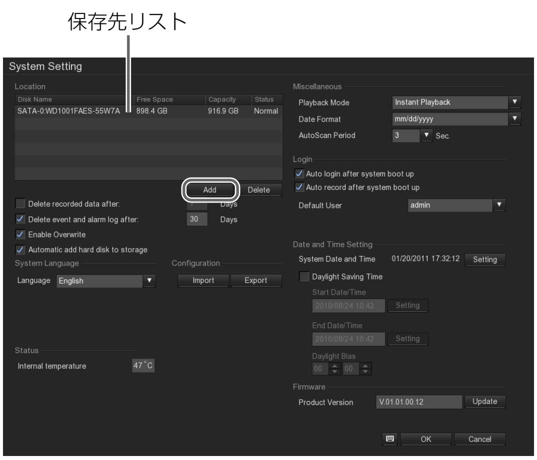
「Step 5　記録の準備をする」に進んでください。

Step 5　記録の準備をする

保存先を設定する（e-SATA ストレージを使用する場合）

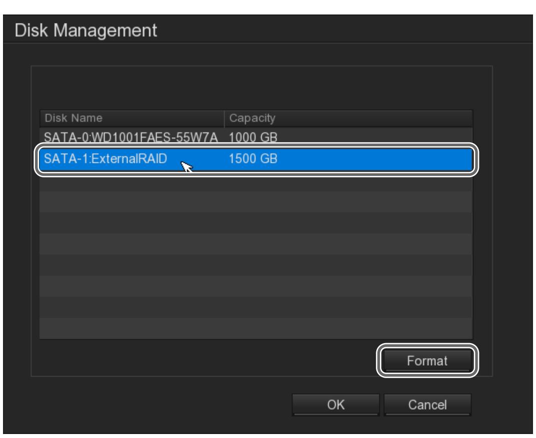
外部ストレージとして e-SATA ストレージを使用するときは、以下の手順で e-SATA ストレージのフォーマットと保存先の追加を行います。

1 「システム設定」画面で、保存先リストの下にある［追加］をクリックする。



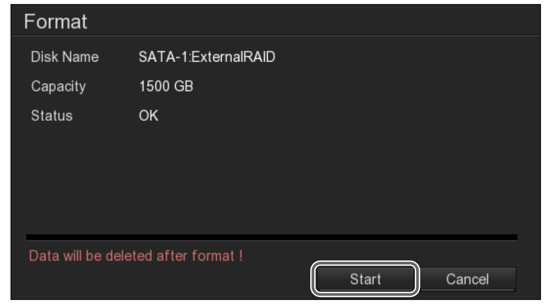
「ディスク管理」画面が表示されます。

2 接続した e-SATA ストレージを選択し、［フォーマット］をクリックする。

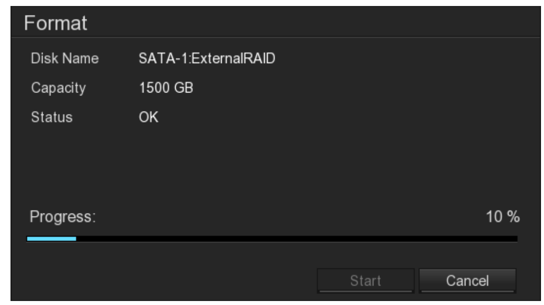


「フォーマット」画面が表示されます。

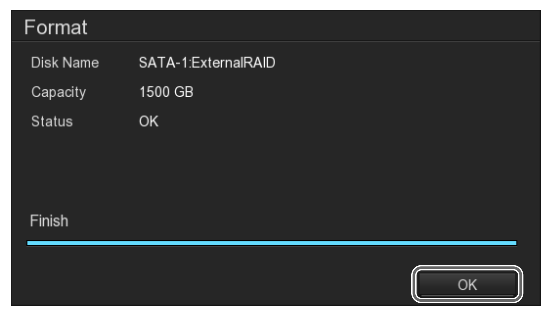
3 ［開始］をクリックする。



フォーマットが開始されます。

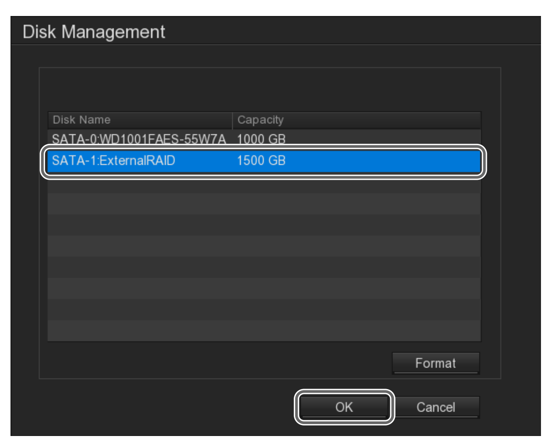


4 フォーマットが完了したら、［OK］をクリックする。

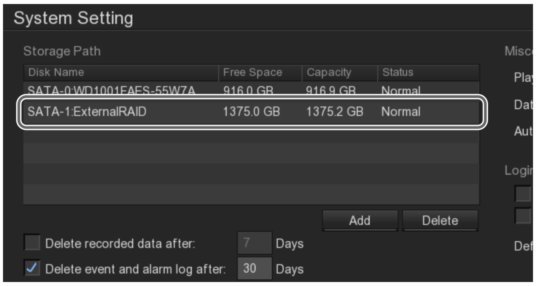


「ディスク管理」画面に戻ります。

5 e-SATA ストレージを選択し、［OK］をクリックする。



e-SATA ストレージが保存先に追加されます。



6 「システム設定」画面の下にある［OK］をクリックし、「Setup」画面に戻る。

以上で設定は完了です。
「Step 6　確認する」に進んでください。

自動登録の設定値

カメラは、以下の設定値で登録されます。

モニタリングの場合

	SNC-RZ25		SNC-RZ50		SNT シリーズ		1280 × 720 対応機種	1920 × 1080 対応機種
	NTSC	PAL	NTSC	PAL	NTSC	PAL		
ビデオサイズ	640 × 480		NTSC 704 × 480 PAL 704 × 576		640 × 480		640 × 480[1)]	640 × 480[1)]
ビデオ形式	MPEG-4		MPEG-4		MPEG-4		MPEG-4	MPEG-4
フレームレート	15		15	12	15	12	15	15
画質 / ビットレート	1,024 kbps		1,024 kbps		1,024 kbps		1,024 kbps	1,024 kbps

1) 16：9 モードのみに対応しているカメラでは、初期設定値は 640 × 368 で登録されます。カメラの機種ごとの初期設定値については、『リリースノート』（PDF）をご覧ください。

記録の場合

	SNC-RZ25		SNC-RZ50		SNT シリーズ		1280 × 720 対応機種	1920 × 1080 対応機種
	NTSC	PAL	NTSC	PAL	NTSC	PAL		
ビデオサイズ	640 × 480		NTSC 704 × 480 PAL 704 × 576		NTSC 720 × 480 PAL 720 × 576		1280 × 720	1920 × 1080
ビデオ形式	MPEG-4		MPEG-4		H.264		H.264	H.264
フレームレート	15		15	12	15	12	10	10
画質 / ビットレート	1,024 kbps		1,024 kbps		1,024 kbps		2,048 kbps	3,072 kbps

個別に設定が必要な項目について

自動登録では、以下の機能は無効または未設定の状態になっています。機能を有効にしたい場合は、『ユーザーガイド』（PDF）をご覧ください。

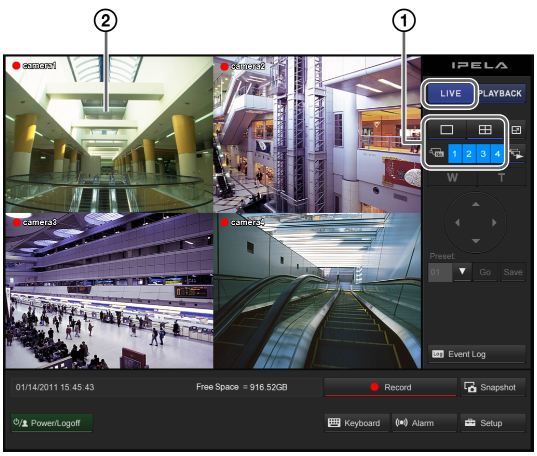
- カメラの音声
- センサー入力
- リレー出力

Step 6　確認する

メイン画面で、カメラからの画像がモニタリングできるか、画像の記録／再生ができるかを確認します。
メイン画面の操作の詳細については、「画面操作ガイド」（14 ページ）や『ユーザガイド』（PDF）をご覧ください。

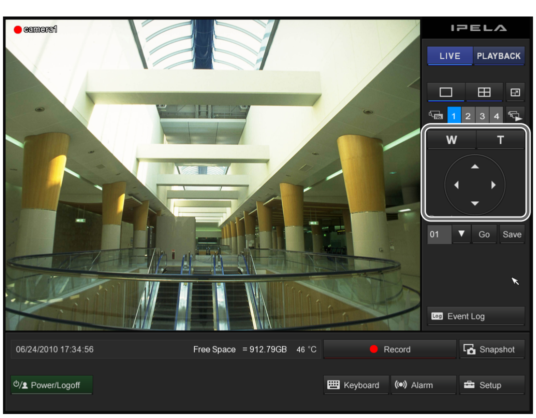
モニタリングの確認をする

画面右上の［LIVE］（ライブ）をクリックし、カメラからの画像が正常にモニタリングできるかなど確認します。



① レイアウトを変更したり、カメラ ID をクリックし、登録されたカメラの画像が表示されることを確認します。

② モニターフレームをクリックして 1 × 1（1 画面）のレイアウトにし、パン、チルト、ズーム操作を行う。
モニターフレームまたはカメラ ID をクリックすると、レイアウトが 1 画面表示になります。
1 × 1（1 面）レイアウトのときは、マウスの右ボタンでドラッグすると、デジタルズームができます。



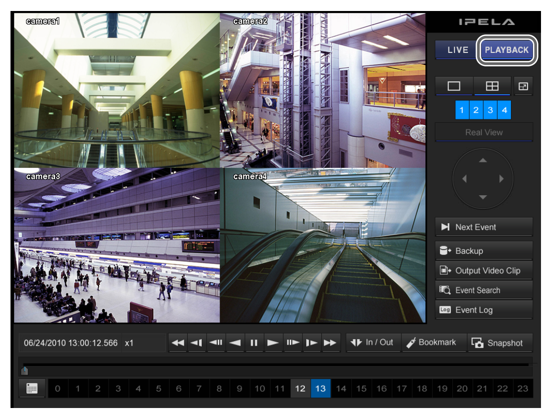
画像の記録／再生を確認する

自動記録が開始されていますので、モニターフレーム上に「●」が表示されていることを確認してください。



記録を再生するには

［PLAYBACK］をクリックします。
［PLAYBACK］をクリックすると、再生画面に切り替わり、直前に記録された画像が自動的に巻き戻されて再生されます（インスタント再生）。



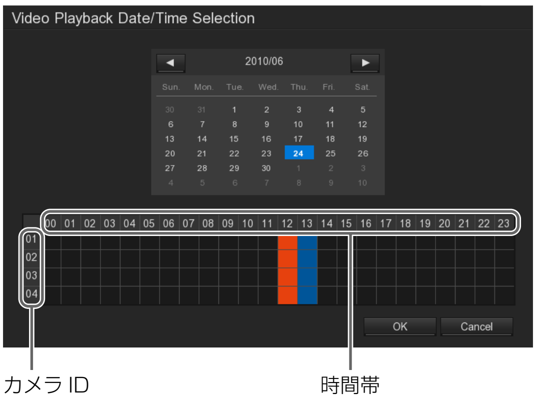
日時を指定して記録を再生するには

画面下部で再生したい記録画像の日時を指定できます。



① 本日記録した画像を再生したいときは、時間のボタンをクリックする。

② 日時を指定して画像を再生したいときは、（日付選択）をクリックし、表示されるカレンダーで日にちを選択し、タイムテーブルでカメラ ID と時間帯を選択する。
記録画像がある時間帯はで表示されます。
選択するときは、をクリックし、表示を に変えます。



③［OK］をクリックする。
画像が再生されます。

以上で基本的な確認は終了です。

さらに本機の機能を使用したり、詳細な設定を行うには

プリセット機能を使ってカメラをコントロールしたり、アラーム記録を行うなど、本機のさまざまな機能を利用したいときは、『ユーザーガイド』（PDF）をご覧ください。

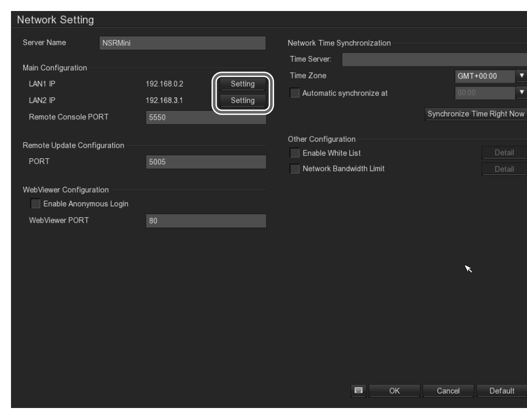
既存のネットワークに接続するには

カメラの IP アドレスが初期設定の状態で本機をネットワークに接続すると、本機が自動的にカメラの IP アドレスを変更し、本機とカメラだけのネットワークが構成されます。
本機を既存のネットワークに接続して使用する場合は、必ず以下の手順で設定を行ってください。
各操作の詳細は、『ユーザーガイド』（PDF）をご覧ください。

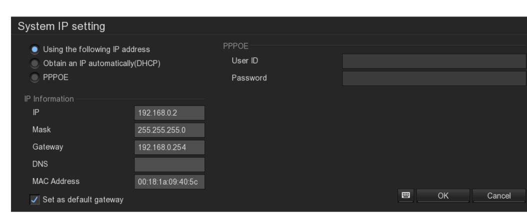
1 本機の電源を入れ、ログオンする。

2 本機の IP アドレスを設定する。
「Setup」画面の（ネットワーク設定）をクリックし、表示される「ネットワーク設定」画面で、本機の IP アドレスを設定します。

① ［LAN1 IP］または［LAN2 IP］の［設定］をクリックする。



② 本機の IP アドレス、サブネットマスク、デフォルトゲートウェイ、DNS の IP アドレスを設定する。

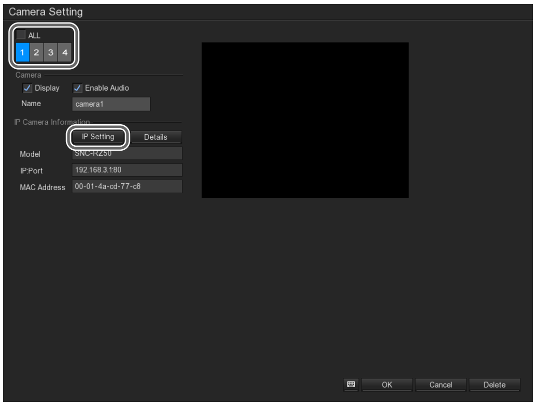


3 本機をネットワークに接続する。

4 本機を再起動する。

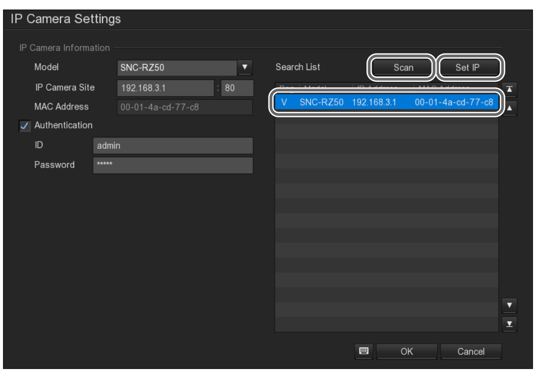
5 カメラを登録する。
「Setup」画面の（カメラ設定）をクリックし、表示される「カメラ設定」画面で、カメラを登録します。

① 登録したいカメラ ID を選択し、[IP カメラ情報] の [IP 設定] をクリックする。



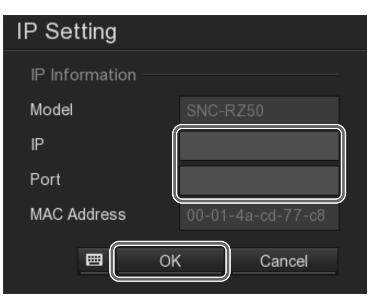
「IP カメラ設定」画面が表示されます。

② [スキャン] をクリックしてカメラを探索し、登録したいカメラを選択して、[Set IP] をクリックする。



「IP 設定」画面が表示されます。

③ カメラの IP アドレスとポート番号を入力し、[OK] をクリックする。



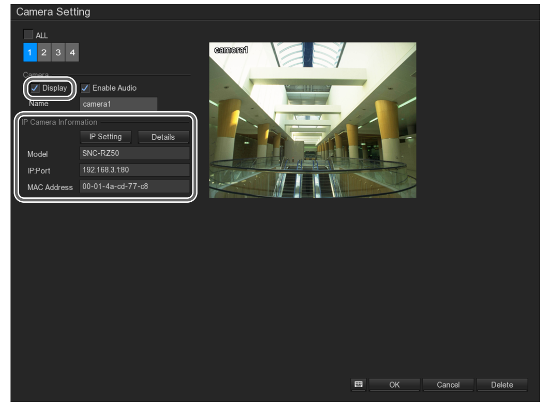
「IP カメラ設定」画面に戻ります。

メモ

ポート番号の初期値は「80」です。

④ [OK] をクリックする。
「カメラ設定」画面に戻ります。

⑤ [IP カメラ情報] の各項目を確認し、[表示] にチェックマークを付ける。
[表示] にチェックマークを付けると、カメラからの画像が表示されるようになります。



画面操作ガイド

メイン画面

モニタリング（LIVE）画面



Ⓐ 1 × 1（1 面）レイアウトのとき

マウスの右ボタンでドラックすると、デジタルズームができます。

Ⓑ モニターフレーム

ライブ画像の表示や記録画像の再生ができます。モニターフレームをクリックすると、そのモニターフレームが1面で大きく表示されます。

モニターフレームには、以下のアイコンが表示されます。

●：記録中

□：動体検出中

記録中に動体を検出すると、●と表示されます。

：音声有効（無効時はグレー表示）

Ⓒ カメラ ID

モニターフレームに画像を表示させるカメラを選択します。

Ⓓ レイアウト切り替え

モニターフレームのレイアウトを切り替えます。

：1 × 1（1 面）のレイアウトに切り替えます。

：2 × 2（4 面）のレイアウトに切り替えます。

Ⓔ モニターフレーム状態切り替え

モニターウィンドウの状態（ライブ／プレイバック）を切り替えます。

Ⓕ （全画面）

現在のレイアウト（モニターフレームの並び）で全画面表示します。通常画面に戻るには、画面右上に表示されるをクリックします。

キーボードの Esc キーでも通常画面に戻ります。

Ⓖ （オートスキャン）

カメラの画像を順番に表示します。

Ⓗ カメラコントロール

パン・チルト・ズーム機能を備えたカメラの場合に、カメラからの画像を操作できます。

広角ズーム／望遠ズーム

W　T

広角側／望遠側にズームします。

［W］はワイド（広角側）、［T］はテレ（望遠）になります。

パン／チルト



カメラを上下左右に動かします。

ご注意

SNT-EX シリーズにアナログカメラをつないでいる場合は、パン・チルト・ズームを制御できるカメラであっても、本機ではアナログカメラのパン・チルト・ズームは制御できません。

Preset（プリセット）
選択したプリセット位置にカメラが移動します。

Ⓘ Event Log（イベントログ）
イベント／操作／システム／ネットワーク履歴を表示します。

Ⓙ Snapshot（保存）
描画中の画面を静止画ファイルとしてエクスポートします。
静止画は JPEG でエクスポートされます。

Ⓚ Setup（システム設定）
「設定メニュー」画面を表示します。

Ⓛ Alarm（アラームステータス）
アラームの状態と履歴を表示します。
アラームを解除するときは、このボタンをクリックし、表示される「アラームの状態」画面で［リセット］をクリックします。

Ⓜ Keyboard（キーボード）
文字を入力するためのソフトキーボードを表示します。

Ⓝ Record（録画）
「録画設定」画面で設定されている録画モードに従って、カメラの画像の記録を開始または停止します。
デフォルトでは、起動時に記録が開始されています。

Ⓞ Power/Logoff（終了）
再起動、電源切断、ログオフ、別のユーザーでのログインができます。

Ⓟ ステータス表示
現在の日時と、ハードディスクの空き容量が表示されます。

再生（PLAYBACK）画面



Ⓐ Real View

カメラからの画像を実サイズ（dot by dot）で表示します。本機能は、カメラのビデオサイズが 1280 × 720 以上のときに有効です。

実サイズ表示で映像の全域が表示されない状態になったときは、右側のパン／チルトボタンで表示するエリアを移動できます。

Ⓑ Next Event（次の検索）

記録データ内の次のイベントにジャンプします。

本機能は、イベント検索機能を使用しているときに有効になります。

Ⓒ Backup（バックアップ）

記録画像をファイルとして USB フラッシュメモリーにバックアップできます。

ご注意

USB フラッシュメモリー以外のマスストレージデバイスは接続しないでください。

Ⓓ Output Video Clip（エクスポート）

記録画像を独自形式のファイル（.dvr）として USB フラッシュメモリーにエクスポートできます。

Ⓔ Event Search（イベント検索）

イベントログの記録（センサー入力、動体検知、VIDEO LOSS（ビデオ信号消失）など）から記録画像を検索できます。

Next Event（次の検索）を使用する場合は、「イベント検索設定」画面で、［イベントリストを出力します］のチェックマークをはずして検索してください。

Ⓕ Event Log（イベントログ）

イベント／操作／システム／ネットワーク履歴を表示します。

Ⓖ In / Out（セグメント設定）

記録画像をエクスポートする場合に、その一部分を指定できます。

このボタンをクリックすると、現在の再生位置に開始点／終了点が設定されます。

開始点と終了点を変更したいときは、開始点と終了点を設定してから再度 In / Out をクリックすると、開始点と終了点をクリアできます。

Ⓗ Bookmark（ブックマーク）

現在の再生位置にブックマークを付けます。

Ⓘ 再生コントロールボタン
記録画像を再生するときに使います。

（早戻し再生）
巻き戻し再生します。（2 倍速、4 倍速、8 倍速、16 倍速、32 倍速、64 倍速）

（スロー戻し再生）
スロー巻き戻し再生します。（1/2 倍速、1/4 倍速）

（コマ戻し）
1 コマ戻します。

（逆再生）
巻き戻し再生します。

（一時停止）
再生を一時停止します。

（再生）
再生します。（1 倍速）

（コマ送り）
1 コマ送ります。

（スロー送り再生）
スロー送り再生します。（1/2 倍速、1/4 倍速）

（早送り再生）
早送り再生します。（2 倍速、4 倍速、8 倍速、16 倍速、32 倍速、64 倍速）

Ⓙ 再生スライダー
現在の再生位置を表示します。
スライダーを動かして移動させることもできます。

Ⓚ 時間指定ボタン
本日記録した画像を再生したいときに使います。
数字は時間を示しています。

Ⓛ 日時指定ボタン
日時を指定して記録を検索するときに使います。
（日付選択）をクリックすると、カレンダーが表示され、日にちと時間を指定できます。

Ⓜ ステータス表示
画像が記録された日時や再生速度が表示されます。

GPL/LGPL について

本製品は、GPL/LGPL 適用ソフトウェアを含みます。したがって、該当ソフトウェアについてのソースコードの入手、改変、再配布の権利があることをお知らせいたします。

これらのソースコードは、Web でご提供しております。ダウンロードする際には、以下の URL にアクセスしてください。
http://www.sony.net/Products/Linux/
なお、ソースコードの中身についてのお問い合わせはご遠慮ください。

MPEG-4 Video Patent Portfolio License について

本製品は、MPEG LA, LLC. がライセンス活動を行っている MPEG-4 VISUAL PATENT PORTFOLIO LICENSE の下、次の用途に限りライセンスされています：

(i) 消費者が個人的、非営利の使用目的で、MPEG-4 Visual 規格に合致したビデオ信号（以下、MPEG 4 VIDEO といいます）にエンコードすること。
(ii) MPEG-4 VIDEO（消費者が個人的に非営利目的でエンコードしたもの、若しくは MPEG LA よりライセンスを取得したプロバイダーがエンコードしたものに限られます）をデコードすること。

なお、その他の用途に関してはライセンスされていません。プロモーション、商業的に利用することに関する詳細な情報につきましては、MPEG LA, LLC. のホームページ（HTTP://WWW.MPEGLA.COM）をご参照ください。

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights.
These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program).
Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and

appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

   a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
   b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
   c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

   a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
   b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
   c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.
6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatestpossible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

> <one line to give the program's name and a brief idea of what it does.>
> Copyright (C) <year> <name of author>
>
> This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.
>
> This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.
>
> You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

> Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.

This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License.Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs.If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library.If this is what you want to do, use the GNU Lesser General Public License instead of this License.

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with
the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with

application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

   a) The modified work must itself be a software library.
   b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
   c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
   d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

   (For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

   These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter

all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not.
Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not

necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception,
the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a

consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

商標について

- "IPELA" および IPELA は、ソニー株式会社の商標です。
- その他、本書に記載されているシステム名、製品名、会社名は一般に各開発メーカーの登録商標または商標です。

なお、本文中では、®、™ マークは明記していません。

お問い合わせは
「ソニー業務用商品相談窓口のご案内」にある窓口へ

ソニー株式会社　　〒108-0075　東京都港区港南1-7-1

http://www.sony.co.jp/